Fitness For Services (FFS)

For Onshore & Offshore Installations

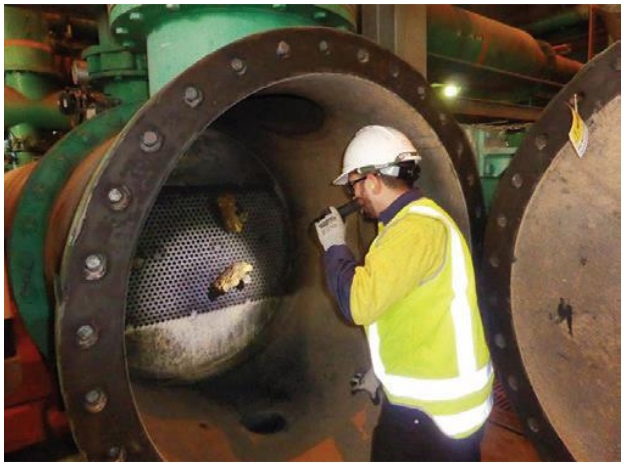
Pressure equipment is assessed using fitness-for-service evaluations to check them for a wide variety of flaws. The pressure equipment that can be evaluated includes storage tanks, boilers, heat exchangers, piping, pressure vessels, etc. Following are some common flaws for which FFS evaluations are performed:

- Fire Damage
- Generalized Corrosion
- Cracks
- Dents
- Localized Corrosion/ Corrosion under insulation
- Bulging
- Blisters and Laminations
- Pitting Corrosion
- Fire Damage

FGI's FFS Methodology:

The fitness-for-service (FFS) evaluations performed by FGI include evaluations on piping, storage tanks, boilers, heat exchangers, pressure vessels, and other specialized equipment. The purpose of these evaluations is to ensure the equipment's structural integrity for the intended design parameters which typically include level-1, 2, and 3.

The evaluation is performed as per API-579-1 /IASME FFS-1 (fitness for service) and other standards, codes, and specifications that apply. The fixed equipment's assessment helps to improve the reliability of the plant, saving time and money.



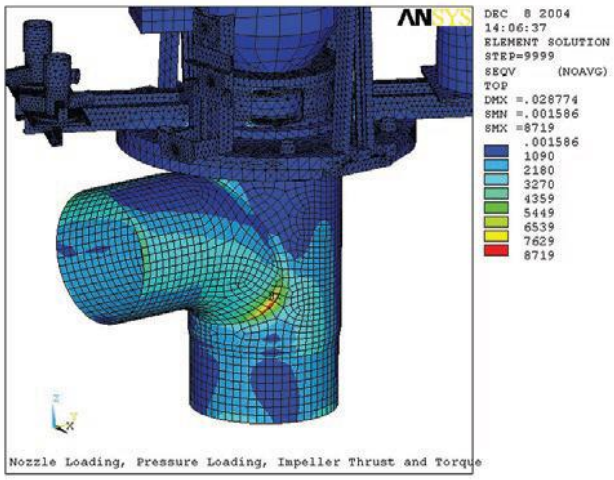
A Full Range of the FFS Experience

All types of damage that can take place in the petrochemical and refining industries are evaluated by FGI. The evaluation is performed on a wide variety of the following:

- Heat exchangers
- Pressure vessels
- Storage tanks
- Process piping
- Heaters (casing, tubes, and stacks)
- Transmission pipelines
- Mechanical components of specialized equipment

Fitness For Services (FFS)

FGI is experienced in the assessment of the following damage mechanisms:



- Hot tap thermal analysis
- Brittle fracture, including tank hydrotest exemption
- Blast loading and other dynamic effects
- General and locally corroded areas, including pitting
- Mechanical vibration
- Laminations and blisters, HIC and SOHIC damage
- Wind-induced vibration of towers, stacks, and pipelines
- Bulges and out-of-roundness
- Modeling of weld residual stresses and incorporation into crack-like flaw assessment
- Crack-like flaws, including stress corrosion and fatigue crack growth
- Local PWHT of weld repairs
- Dents, gouges, and dent-gouge combinations
- Tank shell and edge settlement
- Evaluation of hot spots
- Ring joint flange cracking
- Heater tube remaining life
- Fatigue evaluation of welded joints
- Evaluation of high-temperature equipment for creep and creep-fatigue damage
- Thermal and mechanical fatigue
- High-Temperature Hydrogen Attack (HTHA)
- Fire damage

Why to Choose FGI for FFS

- Focus on your Profitability
- Recognized Leader
- Practical Experience
- Sophisticated Servicing
- Technical Excellence

Fitness For Services (FFS)